

Bloodborne Pathogen Exposure:

Mitigation and Management

Annual Education

Bloodborne Pathogens (BBP)

What are Bloodborne Pathogens?

They are viruses or bacteria that are carried in the blood, or other potentially infectious material (OPIM) that can cause disease in people.

Examples of OPIM include urine, semen, vaginal fluid, peritoneal fluid, amniotic fluid, synovial fluid

How are they transmitted?

- Percutaneous injury – needlestick injury or cut with a sharp object.
- Exposure of eyes, nose, mouth, or broken skin to blood or OPIM

The three most common BBP that healthcare workers come into contact with are:

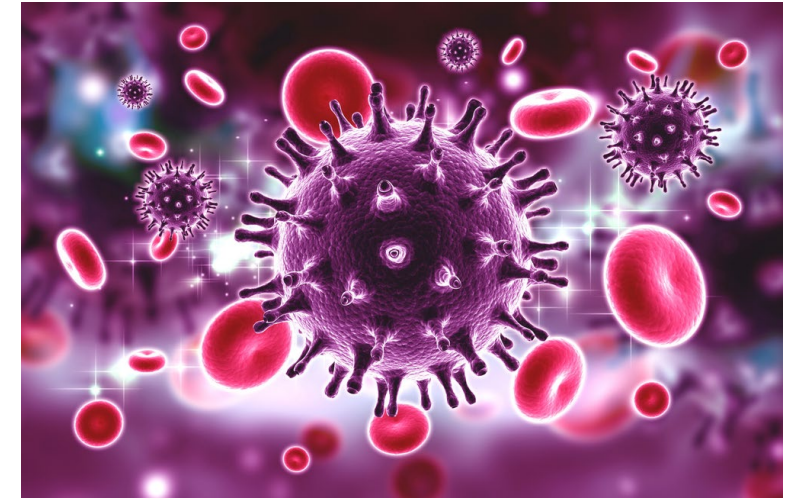
- HIV: Human Immunodeficiency Virus
- HBV: Hepatitis B virus
- HCV: Hepatitis C virus



Human Immunodeficiency Virus (HIV)

What is HIV?

It is a virus that interferes with the body's ability to fight infections. If not treated, it can lead to **acquired immunodeficiency syndrome (AIDS)** in which progressive failure of the immune system allows life-threatening infections and cancers to thrive.



Clinical Features and Laboratory Diagnosis

- Early after infection, within a few weeks to months, acute flu-like symptoms can occur. An asymptomatic period follows, which can last years.

Treatment, Prevention, and Control

- Post-exposure prophylaxis should be started within 72 hours of exposure.
- Practice sharps safety – greater risks associated with sharps injury

Hepatitis B Virus (HBV)

What is Hepatitis B Virus?

- HBV is the most common serious liver infection in the world. It is spread by exposure to infected blood, semen, or other bodily fluids.
- HBV can produce either asymptomatic or symptomatic infection.
 - Asymptomatic carriers are still able to transmit the disease.
 - Symptomatic infection results in hepatitis (inflammation of the liver), with some progressing to chronic HBV which can lead to cirrhosis or liver cancer.

HBV is a vaccine preventable disease

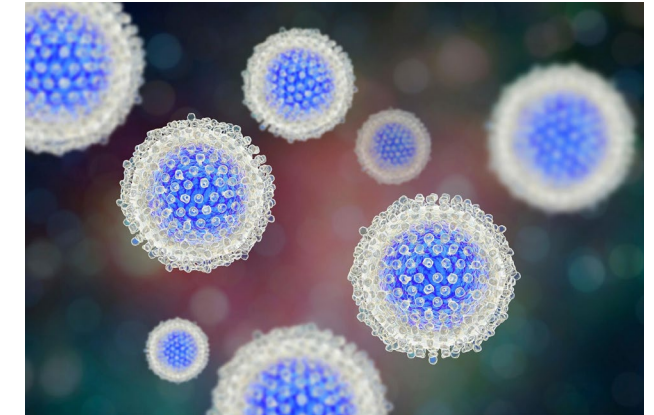
- All healthcare workers with direct patient contact are eligible for the 3-dose Hepatitis B immunization at no charge.
- If an exposure occurs, antibody testing will be performed on exposed healthcare workers.



Hepatitis C (HCV)

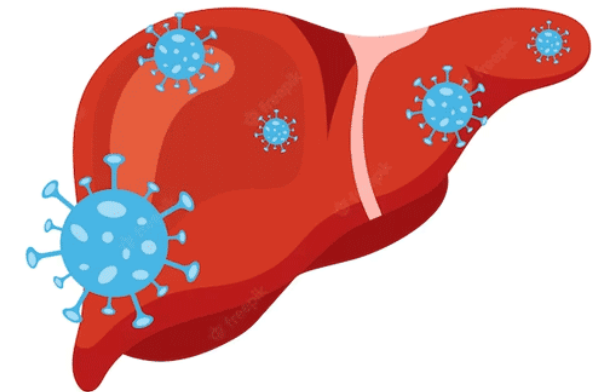
What is Hepatitis C?

- HCV is a liver infection caused by the Hepatitis C virus. Unlike Hepatitis B, there is **no immunization**.
- Most people become infected by sharing needles or other equipment used to prepare and inject drugs.



Clinical Features

- For some people it is a short-term illness, but chronic HCV infection develops in 75-85% of people.
 - It is the most common chronic bloodborne infection in the U.S. and results in cirrhosis, or liver cancer.



Getting tested is important, as new treatments can cure most people in 8 to 12 weeks.

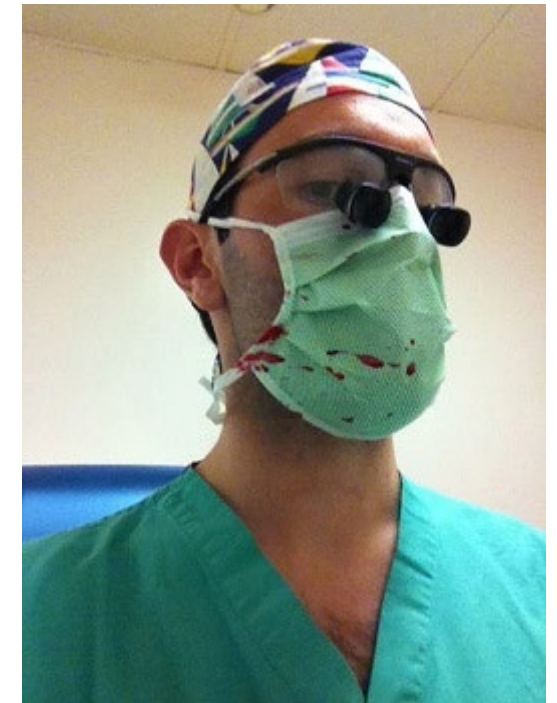
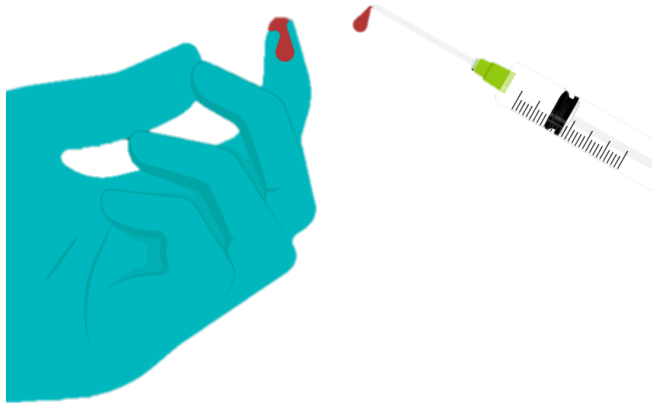
Occupational exposure

What is occupational exposure?

An occupational exposure incident occurs when there is exposure to blood or OPIM to the eyes, mouth, nose, non-intact skin, or sharps injury.

Examples:

- Sharps injury during a surgical procedure
- Splash of urine to face when draining foley bag
- Splash of blood to face when removing central line



What should you do if you have an exposure?

Report exposure immediately to your director/manager and/or house supervisor

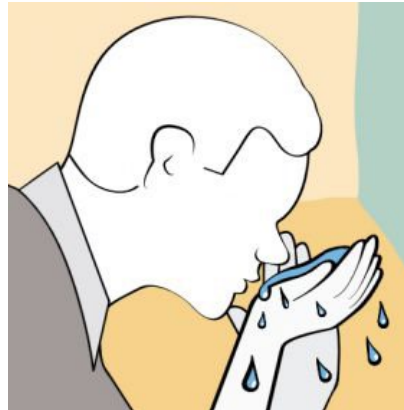
Skin Puncture:

- Wash skin well with soap and water



Splash on nose, mouth, or skin:

- Flush with water



Blood/OPIM in eyes:

- Irrigate eyes with water or saline for 5 minutes



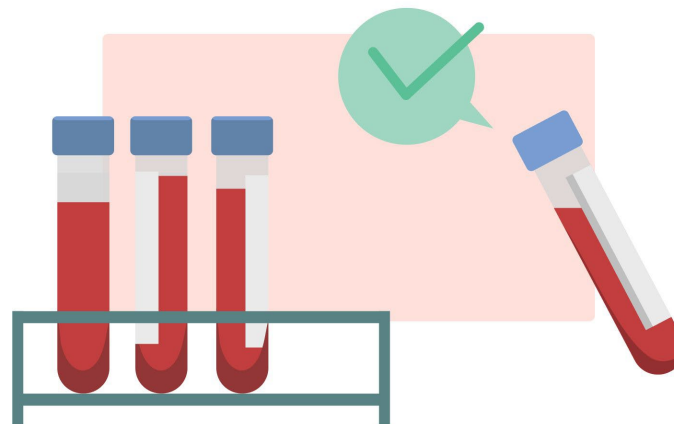
Follow instructions from Employee Health Services immediately after exposure

What happens after exposure?

Employee Health Services will determine if a significant exposure has occurred.

If a significant exposure occurs, they will direct:

- Testing testing
- Recommended treatment (if any)
- Follow up and clearance to return to work



Preventing Occupational Exposures

What causes occupational exposures?

- Recapping of used needles
- Incorrect disposal of sharps
- Transferring or passing sharps in an unsafe manner
- Improper use/lack of PPE in Standard Precautions

How to prevent occupational exposures:

- Practicing sharps safety
 - Remaining aware when sharps are in use
 - Preparing ahead and organizing equipment prior to use of sharps
- Following Standard precautions – treat everything wet except sweat as potentially infectious
- Understanding biohazard signs



Sharps Safety

The CDC estimates that each year 385,000 needlesticks and other sharps-related injury are sustained by healthcare personnel.

Practicing sharps safety is one of the best ways in preventing occupational exposures

1. All sharps must be covered immediately after use.
2. Only dispose of sharps in sharps containers.
 - **DO NOT** dispose of them in the trash.
3. Ensure sharps containers are not full to avoid sharps injury during disposal.
 - Contact EVS to replace full canisters.

NOW
YOU SEE IT.



NOW
YOU DON'T.



**PROTECT YOURSELF AND OTHERS-
USE SHARPS WITH SAFETY FEATURES**

Utilize Standard Precautions

Standard Precautions mean preventing exposures by treating all blood and other potentially infectious material (OPIM) as contaminated – **“Everything Wet Except Sweat”**


- Place a barrier between yourself and the body fluid when contact with body fluids is anticipated by wearing PPE.
- Sequence of donning and doffing PPE matters – it reduces the risk of exposure and cross contamination. .

ATTENTION

Standard Precautions

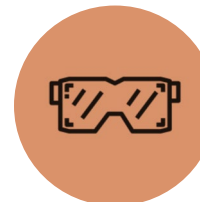
Please adhere to the following precaution:

Assume that blood, body fluid, secretions and excretions from all patients are potentially infectious.

 Perform hand hygiene upon entering and exiting the room and as needed.

When appropriate, please wear gloves, gowns, masks and goggles/face shields.

07/2017



Isolation Precautions

When Standard Precautions are not enough, we add precautions that prevent transmission of pathogens to healthcare workers and other patients.



These precautions include the use of PPE for all patient interactions regardless of type of care being provided.

Signage and Warnings

- Universal biohazard sign for biohazardous wastes.
- **Red bagged trash** is regulated.
- Always dispose of biohazardous waste in marked containers with closed lid.



Hand Hygiene

Hand Hygiene: The most important step to keep yourself safe

When your hands are **NOT** visibly soiled



Alcohol-based Sanitizer – Sterillium

- Entering or exiting a patient room or patient environment
- Before and after touching a patient
- Prior to donning gloves
- After removal of gloves
- Before and after a clean/aseptic procedure

When your hands are **visibly soiled**



Washing Hands – Soap and water

- Exiting the room of a patient on Contact Enteric Precautions (C.diff)
- After using the restroom
- Exposure to blood or other bodily fluids
- ✓ **No artificial nails/nail jewelry**
- ✓ **No gel nail polish**
- ✓ **No personal lotions**
- ✓ **Nail polish must not be cracked or chipped**

BLOODBORNE PATHOGENS

STANDARD PRECAUTIONS FOR THOSE EXPOSED TO BLOOD OR OTHER POTENTIALLY INFECTIOUS MATERIALS IN THEIR OCCUPATION

PROTECT YOURSELF

ALL BLOOD AND BODILY FLUID MUST BE TREATED AS IF THEY WERE INFECTED WITH:

- HUMAN IMMUNODEFICIENCY VIRUS (HIV) WHICH FREQUENTLY LEADS TO AIDS.
- HEPATITIS B VIRUS (HBV).
- OTHER BLOODBORNE PATHOGENS (MICROORGANISMS FOUND IN HUMAN BLOOD WHICH CAN CAUSE DISEASE).

KNOW THE RULES

BE FAMILIAR WITH YOUR ORGANIZATION'S EXPOSURE CONTROL PLAN.



MAKE SURE YOU KNOW:

- VACCINATION REQUIREMENTS
- PROCEDURES
- PRACTICES
- PROPER REPORTING REQUIREMENTS FOR INCIDENTS OF EXPOSURE.

KNOW YOUR COLORS

- RED BAGS OR CONTAINERS DON'T NEED TO BE LABELED - THEIR COLOR INDICATES THEY MAY CONTAIN BIOHAZARDS.
- FLUORESCENT ORANGE-RED LABELS AND SIGNS WITH CONTRASTING LETTERING OR SYMBOLS ARE APPROPRIATE

READ ALL LABELS AND SIGNS

WEAR THE RIGHT EQUIPMENT



PROPER PROCEDURE CAN REDUCE YOUR RISK OF INFECTION TO ZERO

WASH HANDS



AND FOLLOW SAFE HYGIENE AND WORK PRACTICES.

DISPOSE OF NEEDLES IN APPROPRIATE CONTAINERS.



NEVER
RECAP, BEND, OR
BREAK NEEDLES.

FOLLOW PROPER DISPOSAL PROCEDURES.

CONTAMINATED LAUNDRY AND PERSONAL PROTECTIVE EQUIPMENT SHOULD BE DISPOSED OF IN PROPERLY DESIGNATED AREAS.



KEEP IT CLEAN

CLEAN WORKSITE AND DECONTAMINATE EQUIPMENT. FOLLOW ALL SAFE HANDLING PROCEDURES.

DON'T FORGET

ALL BODY FLUIDS SHOULD BE HANDLED AS IF POTENTIALLY INFECTIOUS.

Questions?

Contact Employee Health Services
(818) 952-4796

VHHEmployeeHealthSer@med.usc.edu